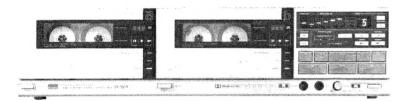


COMPU-SYNCHRO DOUBLE CASSETTE DECK

SANSUI D-W9

(Silver & Black Model)





SANSUI ELECTRIC CO., LTD.

SPECIFICATIONS

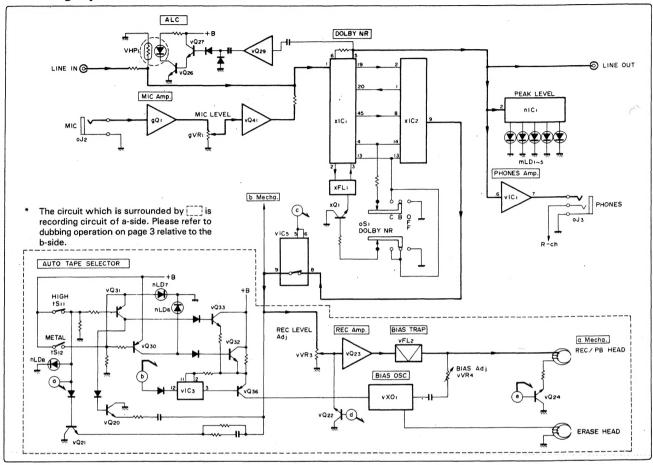
Track format 4-track/2-channel system
Tape speed4.8 cm/sec.
Heads
Record/play High-Bs hard permalloy × 2
Erase High-Bs double-gap ferrite × 2
Motors
For normal tape speed
Electronically controlled DC
motors × 2
For fast forward/rewind
DC motors × 2
For tape mechanism
DC motors × 2
Wow/flutter 0.04% max. (WRMS)
Fast forwarding (rewinding) time
Approx. 90 sec. (for C-60 tape)
Frequency response (-20 VU recording/playback)
Normal (LH) tape 20 to 16,000 Hz
$(30 \text{ to } 15,000 \text{ Hz } \pm 3 \text{ dB})$
Chrome tape 20 to 18,000 Hz
(30 to 17,000 Hz \pm 3 dB)
Metal tape
$(30 \text{ to } 18,000 \text{ Hz} \pm 3 \text{ dB})$
(30 to 10,000 Hz ±3 db)
Signal-to-noise ratio (recording/playback with metal tape
DOLBY NR OFF Better than 58 dB
DOLBY NR ON
B-TYPE Better than 68 dB (above 5 kHz
C-TYPE Better than 78 dB (above 1 kHz
Erasure rate (metal tape)
Recording bias frequency
85 kHz
Input sensitivity/impedance
LINE IN (REC) 150 mV/47 k Ω
MIC
Output level (1 kHz, 0 dB = 200 pwb/mm)
LINE OUT (PLAY) 350 mV
Power requirements 120/220/240V
50/60 Hz
For U.S.A. and Canada
120V (60 Hz)
Power consumption 25W
Dimensions 430 mm (16-15/16'')W
111 mm (4-7/16'')H
312 mm (2-5/16′′)D
Weight 6.4 kg (14 lbs.) net
7.6 kg (16.8 lbs.) packed
7.0 kg (10.0 lbs.) packed

* Design and specifications subject to change without notice for improvements.

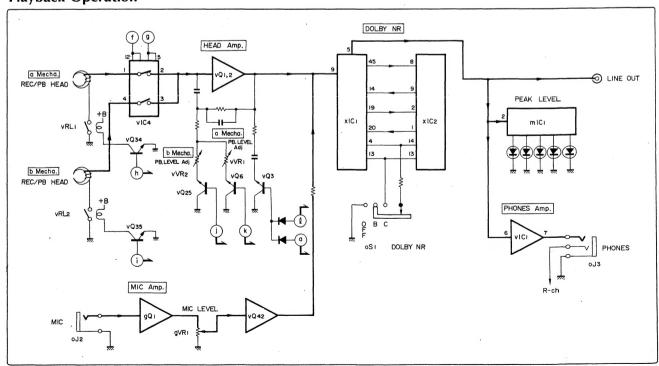
Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby" and the double D symbol are trade marks of Dolby Laboratiories Licensing Corporation.

1. BLOCK DIAGRAM

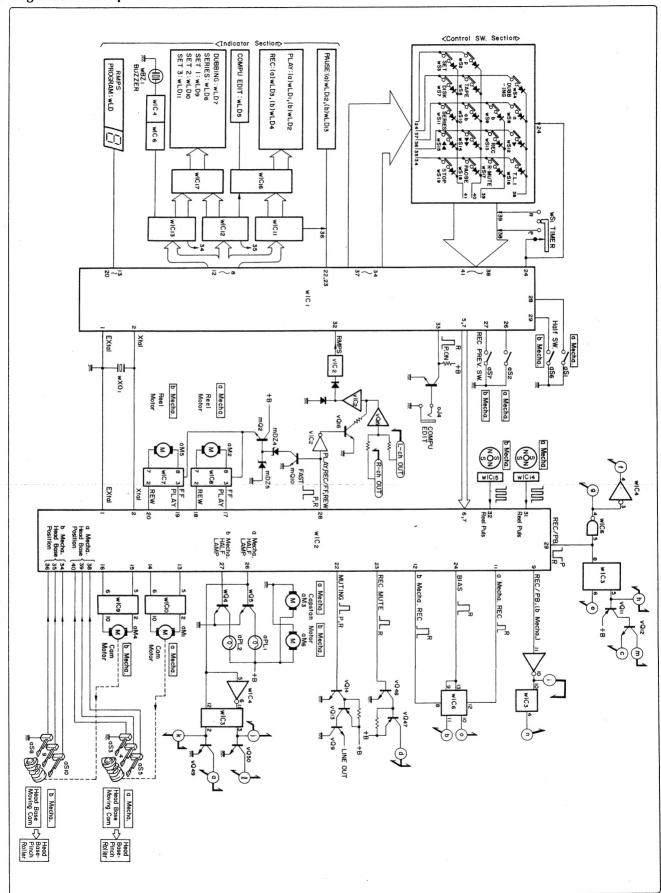
1-1. Recording Operation



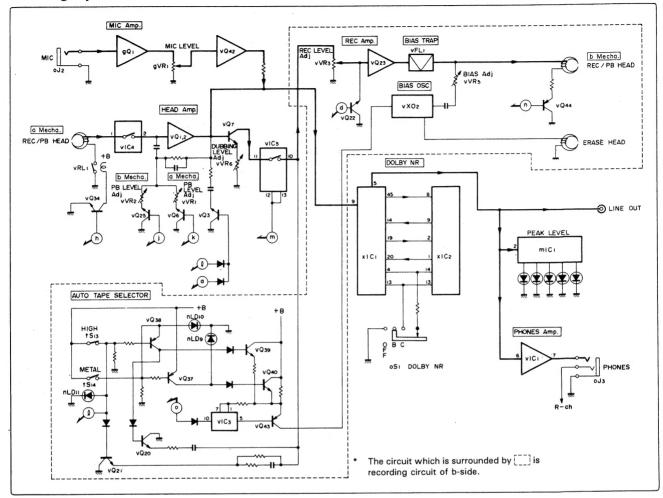
1-2. Playback Operation



1-3. Logic Control Operation



1-4. Dubbing Operation



List 1-1. LINE OUT signal, PHONE OUT signal, Operation of DOLBY NR & Operation of Head on the occasion of each Operation

	Operation of D-W9	LINE OUT Signal	PHONE OUT Signal	Operation of DOLBY NR	Operation of Head
1	A Mecha.····PLAY	A, M	A, M	Р	Р
2	B Mecha.····PLAY	В, М	В, М	Р	Р
3	A Mecha.····REC	L, M	L, M	R	R
4	B Mecha.····REC	L, M	L, M	R	R
	A Mecha.····PLAY)			Р
5	B Mecha.····REC (Dubbig SW.····ON)	} A, M	Α, Μ	Р	R
	A Mecha.····REC)			
	B Mecha.····REC (ab SW.····ON)	} L, M	L, M	R	R

Note: A, M······A Mecha. Play Back Signal & Mic Signal B, M······B Mecha. Play Back Signal & Mic Signal L, M·····Line Signal & Mic Signal P·····Play Back R······Record

List 1-2. Principal terminal OUTPUT Potential of MB8841-1102M(WIC2)

Pin N	۱o.	9	11	12	23	24	26	27	29
Funct	ion	(b Mecha.) PEC/PB	REC (a)	REC (b)	REC. MUTE	BIAS	Half Lamp (a)	Half Lamp (b)	REC/ PB
DUBB a ⊳		Н	L	Н	L	L	Н	Н	Н
	а	Н	L	L	Н	Н	Н	L	Н
PLAY	b	L	L	L	Н	Н	L	Н	Н
₽	а	L	Н	L	L	L	Н	L	L
REC	b	Н	L	Н	L	L	L	Н	L
REC	ab	Н	Н	Н	L	L	Н	Н	L
PLAY	' a	Н	L	L	Н	Н	Н	L	Н
REC	а	Н	Н	L	L	L	Н	L	L
PLAY	b '	L	L	L	Н	Н	L	Н	Н
REC	b	Н	L	Н	L	L	L	Н	L

2. ADJUSTMENTS

2-1. Tape Speed Adjustment

Note: 1. Use Sansui Test Tape, SCT-3SK

(3 kHz signals are recorded on the tape). 2. Connections are shown in Fig. 2-1.

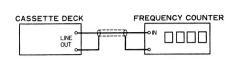
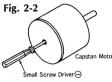


Fig. 2-1



STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	A Side Mecha.	LINE OUT Frequency counter	Playback the TEST TAPE SCT-S3K. A Side Mecha	Turn semi-variable resistor of A Side Mecha. as Fig. 2-2	3000Hz ± 45Hz	Use small screw driver.
2.	B Side Mecha.		Playback the TEST TAPE SCT-S3K. B Side Mecha.	Turn semi-variable resistor of B Side Mecha. as Fig. 2-2.		

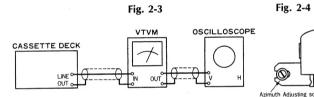
*Torque of this model: PLAY 35g·cm ~ 55g·cm FF, REW more than 70g·cm

2-2. Playback Adjustment

Note: 1. Before this adjustment, clean REC/P.B. head

surface. 2. For this adjustment, use Sansui Test Tape, SCTF10K, SCT-L400 and SCT-F1K.

Set the Dolby NR switch to be OFF.
 Connections are shown in Fig. 2-3.



1) A-Side Mecha. Adjustment

Note: Push a button.

	STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
-	1.	P.B. Head Adj.	LINE OUT VTVM and Scope Playback the TEST TAPE SCT-F10K		Adjust the azimuth adjusting screw in Fig. 2-4.	MAX. Output both channels.	Refer to removement of Lid Ass'y on Page 10. After this adjustment, lock the screw with paint.
•	2.	Playback Level Adj.	Same as above	Playback the TEST TAPE SCT-L400	Adjust each vVR1 on L-CH and R-CH. (F-3942)	540mV±1 dB	See Top View on Page 9.
•	3.	High Frequency	requency (`	Playback the TEST TAPE-SCT-F1K.	_	-	Read output levels on both channels.
		Equalization Check		Playback the TEST TAPE SCT-F10K	_		Confirm that the output levels are within ±3 dB comparing with the above readings.

2) B-Side Mecha. Adjustment

Note: Push b button.

	·								
STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS			
1.	REC/P.B. Head Adj.	LINE OUT VTVM and Scope	Playback the TEST TAPE SCT-F10K	Adjust the azimuth adjusting screw in Fig. 2-4	MAX. Output both channels.	Refer to removement of Lid Ass'y on Page 10. After this adjustment, lock the screw with paint.			
2.	Playback Level Adj.	Same as above	Playback the TEST SCT-L400	Adjust each vVR2 on L-CH and R-CH. (F-3942)	540mV±1 dB	See Top View on Page 9.			
3.	High Frequency	Same as above	Playback the TEST TAPE SCT-F1K.	-	_	Read output levels on both channels.			
	Equalization Check		Playback the TEST TAPE SCT-F10K	-	_	Confirm that the output levels are within ± 3dB comparing with the above readings.			

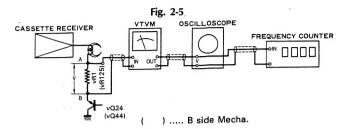
2-3. Recording Adjustment

1) Bias Adjustment

Perform this adjustment, when replacing bias osc circuit, variable resistor for bias adjustment or REC/PB head.

Note: 1. For this adjustment, use Sansui Test Tape, SCT-SA. 2. Set the Dolby NR Switch to be OFF.

3. Connections are shown in Fig. 2-5.



a. A-side Mecha. Adjustment Puch a button

STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS	
Recording Bia Adj.		Between (A) & (B) points of each VR1	Load the TEST TAPE SCT-SA Push REC button.	Adjust vVR4 (L-ch, R-ch) (F-3941)	40mV	See Top View on Page 9.	
	(F-3941) VTVM, Scop Frequency Counter		Load the TEST TAPE SCT-AD Push REC button.	_	_	Confirm the indication on VTVM shows 25mV.	
			Load the TEST TAPE SCT-MA. Push REC button.	_	_	Confirm the indication on VTVM shows 75mV.	
2.	Bias Frequency Adj.	Same as above	Load the TEST TAPE SCT-SA. Push REC button	Adjust core of OSC block (vXO1).	85kHz ± 10kHz	See Top View on page 9.	
3.	Bias Trap Adj.	Between Collector of vQ5 (L-ch, R-ch) & Earth. (F-3941) Scope	Load the TEST TAPE SCT-SA. Push REC button.	Adjust vFL2 (L-ch, R-ch) (F-3941)	Until bias signal well be minimum on scope.	See Top View on page 9.	

b. B-side Mecha. Adjustment

Note: Push b button.

STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	Adj. (B) points each vR12 (F-3941) VTVM, Sc	B points of each vR125	Load the TEST TAPE SCT-SA. Push REC button	Adjust vVR5 (L-ch, R-ch) (F-3941)	40mV	See Top View on Page 9.
		VTVM, Scope, Frequency	Load the TEST TAPE SCT-AD Push REC button	-	_	Confirm the indication on VTVM shows 25mV.
			Load TEST TAPE SCT-MA. Push REC button	_	· -	Confirm the indication on VTVM shows 75mV.
2.	Bias Frequency Adj.	Same as above	Load the TEST TAPE SCT-SA. Push REC button.	Adjust core of OSC block (vXO2).	85kHz ± 10kHz	See Top View on page 9.
3.	Bias Tape Adj. Adj.	Between Collector of vQ4 (L-ch, R-ch) & Earch. (F-3941) Scope	Load the TEST TAPE SCT-SA. Push REC button.	Adjust vFL1 (L-ch, R-ch).	Until bias signal well be minimum on scope.	GEE 1 OF VIOLE ON PAGE OF

A List of Sansui Tost Tane

Name of TEST TAPE	Recorded Frequency	Description	Equivalent To	
SCT-F40	40 Hz	Playback Frequency Response Check	_	
SCT-F1K	1 kHz	High Frequency Equalization Check	_	
SCT-F10K	10 kHz	REC/PB Head Adjustment	_	
SCT-L400N	400 Hz	Playback Level and Indicator Level Adjustment	_	
SCT-S3K	3 k Hz	Speed Check and Wow & Flutter Check	-	
*SCT-AD NORMAL (LH)	-	Recording Bias Adjustment	TDK AD	
*SCT-SA HIGH (CrO ₂)	_	REC/PB Level Adjustment	TDK SA	
*SCT-MA (METAL)	_	Frequency Response Check	TDK MA	

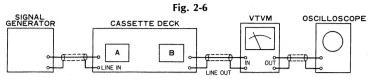
Note: Some reference tapes marked * are not supplied.

2) REC Level & Frequency Response Adjustment

Note: 1. Connections are shown in Fig. 2-6.
2. Set the Dolby NR switch to be ON (C-TYPE)

a. A-Side Mecha. Adjustment

Note: Push a button.



STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	REC Level Adj.	Feed 1kHz, 50mV from S.G. into LINE IN.	LINE OUT VTVM and Scope	Load the TEST TAPE SCT-SA. 1. Push REC button. 2. Playback the 1kHz signal.	Adjust vVR3 (L-ch, R-ch) until playback level of the A side Mecha. and output signal level on recording operation will be equal.	vVR3 are shown in Top View on Page 9.
2.	Frequency Response Adj.	Feed 1 kHz 15mV and 10kHz 15mV from SG into LINE IN	LINE OUT VTVM and Scope	Load the TEST TAPE SCT-SA. 1. Record the 1kHz and 10 kHz signals from S.G. 2. Playback the 1kHz and 10kHz signals, then confirm 10 kHz signal level in less than 1kHz signal level ± 2dB on VTVM	1. If not, adjust vVR4 (L-ch, R-ch) (F-3941) slightly until the 10kHz signal level in less than 1kHz signal level ±2dB on VTVM.	As vVR4 are previously adjusted turn them slightly, if necessary.

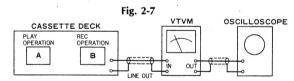
b. B-Side Mecha. Adjustment

Note: Push b button.

STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	REC Level Adj.	Feed 1kHz, 50mV from S.G. into LINE IN.	LINE OUT VTVM and Scope	Load the TEST TAPE SCT-SA. 1. Push REC button. 2. Playback the 1kHz signal.	Adjust vVR3 (L-ch, R-ch) until playback level of the B side Mecha. and output signal level on recording operation will be equal.	vVR3 are shown in Top View on Page 9.
2.	Frequency Response Adj.	Feed 1 kHz 15mV and 10kHz 15mV from SG into LINE IN	LINE OUT VTVM and Scope	Load the TEST TAPE SCT-SA. 1. Record the 1kHz and 10 kHz signals from S.G. 2. Playback the 1kHz and 10kHz signals, then confirm 10 kHz signal level in less than 1kHz signal level ±2dB on VTVM	1. If not, adjust vVR5 (L-ch, R-ch) (F-3941) slightly until the 10kHz signal level in less than 1kHz signal level ±2dB on VTVM.	As vVR5 are previously adjusted turn them slightly, if necessary.

3) DUBBING Level Adjustment

Note: 1. Connections are shown in Fig. 2-7.
2. Set the Dolby NR switch to be OFF.

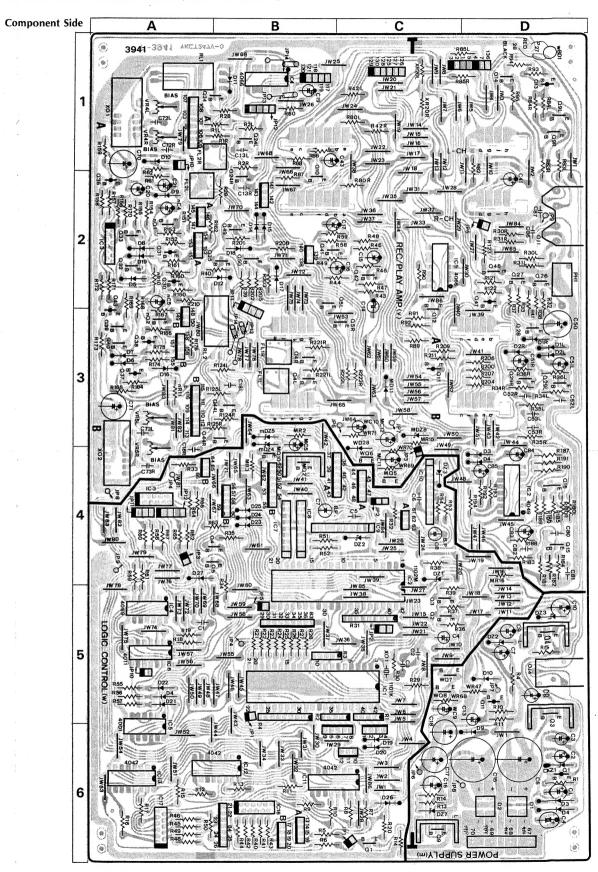


STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	DUBBING Level Adj.	_ ::	LINE OUT VTVM and Scope	Load the TEST TAPE SCT-F1K to A side Mecha. Load the TEST TAPE SCT-SA to B side Mecha. 1. Dubbing switch ON. 2. Push PAUSE button. 3. Playback the 1kHz signal (TEST TAPE SCT-SA) of B side Mecha.	Adjust vVR6 (L-ch, R-ch) until playback level of the A side Mecha. and B side Mecha. will be equal.	vVR6 are shown in Top View on Page 9.

3. PARTS LOCATION & PARTS LIST

3-1. F-3941 Main Circuit Board (Stock No. 00725901)

Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the Common Parts List for capacitors & resistors, which was appended previously to Sansui Manual.

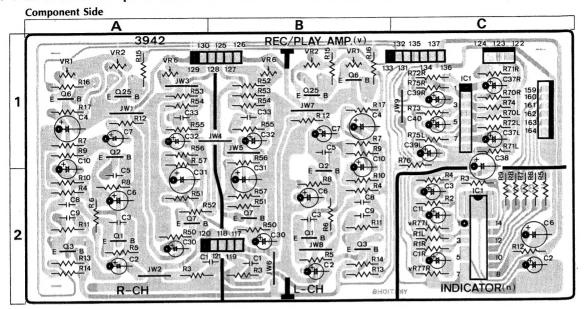


Parts List

Parts No.	Stock No.	Description
 Transistor 		
mQ1, 11	46367001	2SA1115
	46392001	2SA1175
mQ2~4	03086101	2SD357
mQ5	46359801	2SC2001
mQ9		2SD1147
	07287101	
mQ10	46367101	2SC2603
or	46391901	2SC2785
Diode		
mD1,2	46273600	DBB10-B
mD3, 4	03117700	10E-2
mD9~11	03117600	1S2473D
or	46086000	1S1588
		
•Zener Diod∈ mDZ1, 3	9 46111500	05Z5.6
mDZ1, 3		
	46113900	05Z12
mDZ4	46111100	05Z5.1
mDZ5	46112100	05Z6.8
mDZ7	46114800	05Z16
mDZ8	46114500	05Z15
Transistor		
nQ1,2	46367101	2SC2603
or	46391901	2SC2785
oJ1	46363800	4P INPUT/OUTPUT Terminal Board
	46411800	Jack, COMPU EDIT.
		555M, 551M 6 25777
Transistor		
vQ4,5	46367101	2SC2603
or	46391901	2SC2785
vQ9, 10	46367101	2SC2603
or	46391901	2SC2785
vQ11, 13	46367001	2SA1115
or	46392001	2SA1175
vQ12	46367101	2SC2603
or	46391901	2SC2785
vQ14~16		2SC2603
	46391901	2SC2785
vQ24	46367101	2SC2603
	46391901	2SC2785
vQ26~29		2SC2603
	46391901	2SC2785
	46367001	2SA1115
	46392001	2SA1175
vQ32~35		2SC2603
	46391901	2SC2785
vQ36~38		2SA1115
	46392001	
vQ39~42		2SA1175
		2SC2603
	46391901	2SC2785 2SA1115
	46367001	
	46392001	2SA1175
	46367101	2SC2603
	46391901	2SC2785
vQ48∼50		2SC2603
or	46391901	2SC2785
IC		
	03611800	MSM4049RS
	46502800	TA78
vIC4, 5	46421000	μPD4066BC
Diada.		
Diode vD1~12	03117600	1S2473D
	46086000	1S1588
vD14~19		1S2473D
	46086000	1S1588
	03111600	1S2473
or	03111800	1S1588
	09200800	Photo Coupler P873-G35-911
vPH1		
	46229800	470Ω 1/2W N.I.R.

Parts No.	Stock No.	Description
Capacitor		
vC13, 18	07211700	1000pF 25V C.C.
vC52	07215800	0.01µF 25V C.C.
vC80, 82		0.015µF 25V C.C.
		2200pF 25V C.C.
vC81	07215000	
	07214000	0.047μF 25V C.C.
89		
vXO1, 2	46502600	OSC Block
vFL1, 2	07237900	Filter, Bias Trap
vVR4, 5	10371000	100kΩ(B) S.V.R., BIAS ADJ.
vRL1, 2.	11504700	Relay
Transistor		
wQ1~8	46367101	2SC2603
	or 46391901	2SC2785
•IC		
wIC1	46470700	MB8841-1101K
wIC2	46470800	MB8841-1102M
wIC3	46502800	TA78
	46427000	
wIC4		μPD4069UBC
wIC5	46443800	μPD4001BC
wIC6	46427200	μPD4011BC
wIC7, 8	46149600	BA6208
wIC9, 10		BA6109
	3 46505400	μPD4042BC
wIC16, 17	46502800	TA78
wXO1	46505500	Ceramic Element
●Diode		
wD4	03117600	1S2473D
0	r 46086000	1S1588
wD19~28	03117600	1S2473D
0	r 46086000	1S1588
•Zener Dioc	le	
wDZ1	46109700	05Z3.3
wDZ2, 3	46112700	05Z8.2
Array Resi	stor	
wR1,3	46038900	22kΩ-4
wR2	46038100	4.7kΩ-4
wR4, 31	46045500	4.7kΩ-8
Capacitor		
wC1	07211700	1000pF 25V C.C.
wC5, 6	07215800	0.01µF 25V C.C.
wC7,8	08451000	10μF 16V E.B.
wC12, 13	07214000	0.047µF 25V C.C.
wBZ1	07244900	Buzzer

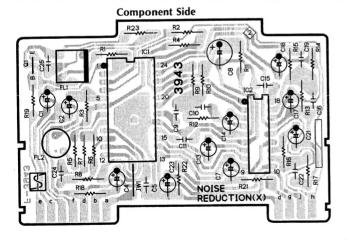
3-2. F-3942 Head Amp. & Level Indicator Circit Board (Stock No. 00726001)



Parts List			
Parts No.	Stock No.	Description	
•IC			
nIC1	03611600	LB1416	
Transistor	r		
vQ1, 2, 7	7 07225401	2SC2320L	
vQ3, 6, 2	25 46367101	2SC2603	
	or 46391901	2SC2785	
•1C			
vIC1	46147700	M5218L	
vR76	46229600	330Ω 1/2W N.I.R.	

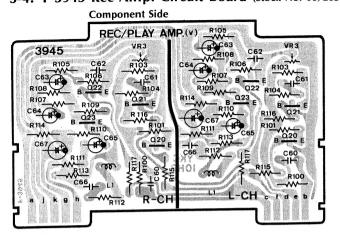
Parts No.	Stock No.	Description
Capacitor		
vC2	46030200	4.7μF 25V E.L.
vC8	07215200	3300pF 25V C.C.
vC9	07214900	1800pF 25V C.C.
vC88	07214000	0.047µF 25V C.C.
vVR1,2	46336900	2.2kΩ S.V.R., P.B. LEVEL ADJ.
vVR6	46336300	220Ω S.V.R., DUBBING LEVEL ADJ

3-3. F-3943 DOLBY NR Circuit Board (Stock No. 00726101)



Parts No.	Stock No.	Description	_
 Transistor 			
xQ1	46367101	2SC2603	
(or 46391901	2SC2785	
●IC			
xIC1	46503200	NE654	
xIC2	46503100	NE652	
Capacitor			
xC1, 4	46034900	3.3µF 50V E.L.	
xC5	07211700	1000pF 25V C.C.	
xC9, 16, 22	07216400	0.033µF 25V C.C.	
xC10, 11	07215400	4700pF 25V C.C.	
xC15	07216600	0.047µF 25V C.C.	
xC19	07216800	0.068µF 25V C.C.	
xC24	07215800	0.01µF 25V C.C.	
×C25	07215100	2700pF 25V C.C.	
xFL1	46177500	Dolby Filter	
xFL2	46177600	Trap Filter, 19.8 MHz	

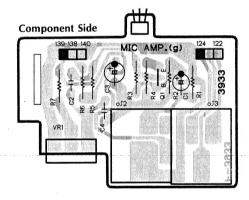
3-4. F-3945 Rec Amp. Circuit Board (Stock No. 00726301)



Parts No.	Stock No.	Description
Transistor		
vQ20~23	46367101	2SC2603
0	r 46391901	2SC2785
Capacitor		
vC60	07215000	2200pF 25V C.C.
vC61, 66	07216300	0.027µF 25V C.C.
vC62	07215200	3300pF 25V C.C.
vL1	46313900	Inductor 2.7MH
vVR3	07262000	20kΩ S.V.R., REC LEVEL ADJ.

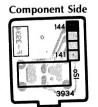
• Note: The circuit boards, F-3933, F-3936, F-3934, F-3935, F-3937, F-3938, F-3939, F-3940 & F-3946 are not supplied as the assembled. However, individual parts on the circuit board are provided by orders.

3-5. F-3933 Mic Amp. Circuit Board



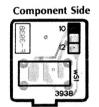
Parts List			
Parts No.	Stock No.	Description	
•Transistor	07225401	2SC2320L	
gQ1	07225401	25023201	
gC1 gC2	46032700 46131900	1μF 50V E.L. 0.056μF 25V C.C.	
gVR1	07106701	20kΩ V.R., MIC LEVEL	
oJ2 oJ3	46502200 46096600	Jack, MIC Jack, PHONES	

3-6. F-3938 Timer SW. Circuit Board



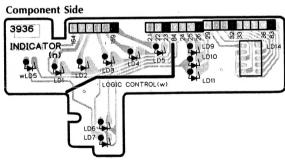
Parts List			
Parts No.	Stock No.	Description	
wS1	46408600	Slide SW., TIMER	

3-7. F-3934 DOLBY SW. Circuit Board



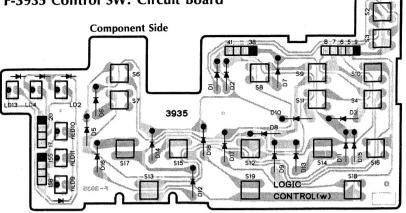
Parts List			
Parts No.	Stock No.	Description	
oS1	46503700	Slide SW., DOLBY-NR	

3-8. F-3936 Indicator Circuit Board



Parts List		
Parts No.	Stock No.	Description
nLD1~3	07250900	LED TLG123A, PEAK LEVEL (-10, -5, 0)
nLD4,5	46176900	LED TLS-123, PEAK LEVEL (+3, +6)
wLD5	46176900	LED TLS-123, COMPU EDIT.
wLD6, 7	07250900	LED TLG123A, SERIES, DUBBING
wLD9~11		LED TLS-123, RMPS SET
wLD14	46502300	LED LA301VB, RMPS PROGRAM

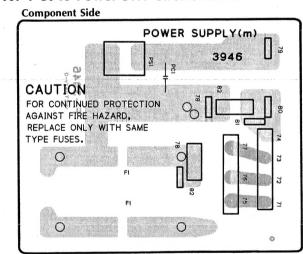
3-9. F-3935 Control SW. Circuit Board



Parts No.	Stock No.	Description	
•LED			
nLD9~1	1 46176900	LED TLS-123	
 Diode 			
wD1~3	03111600	1S2473	
	or 03111800	1\$1588	
wD5~18	03111600	1S2473	
	or 03111800	1S1588	

Stock No.	Description
07250900	LED TLG123A
46176900	LED TLS-123
07251000	LED TLY123
46133300	Push SW., PROGRAM, PROGRAM SET, DUBBING
46133300	Push SW., Control Mecha. a, Mecha b REC ONLY a b, SERIES
	07250900 46176900 07251000 46133300

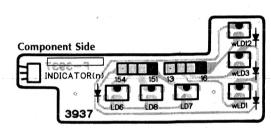
3-10. F-3946 Power SW. Circuit Board



Parts No.	Stock No.	Description
pC1	46425800	0.01µF 400V C.C.
pS1	46360300	Push SW., POWER

- Abbreviations	
C.R. : Carbon Resistor	E.B. : Bi-Polar Electrolytic Capacitor
S.R. : Solid Resistor	E.BL.: Low Leak Bi-Polar Electrolytic
Ce.R.: Cement Resistor	Capacitor
M.R. : Metal Film Resistor	Ta.C.: Tantalum Capacitor
F.R. : Fusing Resistor	F.C. : Film Capacitor
N.I.R.: Non-Inflammable Resistor	M.P. : Metalized Paper Capacitor
C.C. : Ceramic Capacitor	P.C. : Polystyrene Capacitor
C.T. : Ceramic Capacitor, Temperature	G.C. : Gimmic Capacitor
Compensation	V.R. : Variable Resistor
E.C. : Electrolytic Capacitor	S.V.R.: Semi Variable Resistor
E.L. : Low Leak Electrolytic Capacitor	SW. : Switch

3-11. F-3937 a Mecha. Indicator Circuit Board



Parts No.	Stock No.	Description
nLD6~8	46176900	LED TLS-123, Tape Sel. Indicator
wLD1 wLD3 wLD12	07250900 46176900 07251000	LED TLG123A LED TLS-123 LED TLY123

3-12. F-3939 b Mecha. Hall Element Circuit Board



Parts List		
Parts No.	Stock No.	Description
wIC14	03614000	DN6838

3-13. F-3940 a Mecha. Hall Element

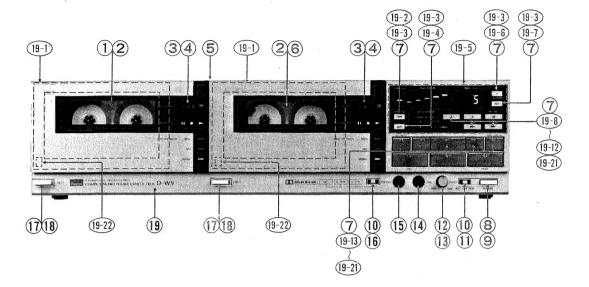


Parts List		Circuit Board
Parts No.	Stock No.	Description
wIC15	O3614000	DN6838

8

4. OTHER PARTS

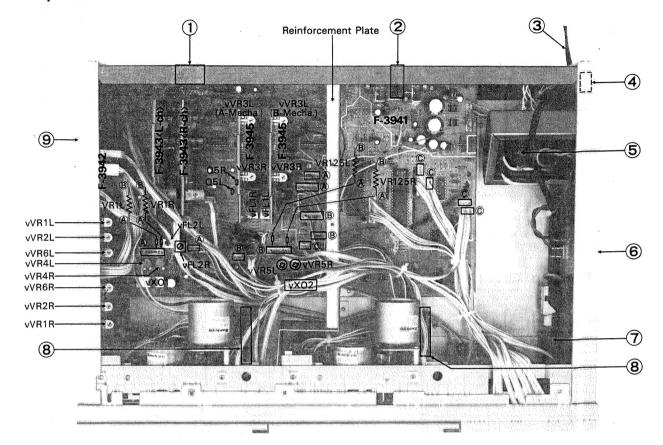
4-1. Front View



Parts List < Front View	Parts	List	< Front	View
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	rront view>				
Parts No.	Stock No.	Description	Parts No.	Stock No.	Description
<silver &="" e<="" td=""><td>lack Model></td><td></td><td>19-15</td><td>47107600</td><td>Push Knob, PLAY</td></silver>	lack Model>		19-15	47107600	Push Knob, PLAY
2	47127700	Mechanism Panel Ass'y	19-16	47107200	Push Knob, FF
3	46502100	Tape Counter	19-17	47107400	Push Knob, TAPE LEAD IN
4	47122500	Counter Belt	19-18	47107700	Push Knob, REC
7	46133300	Push SW., P, SET, DUBBING,	19-19	47107900	Push Knob, STOP
		mechanism control, a, b, ab, SERIES,	19-20	47107800	Push Knob, PAUSE
		TAPE, DISK	19-21	47086900	Spring, mechanism control knob
8	47113700	Knob, POWER	19-22	47122900	Spring, cassette well
9	46360300	Push SW., POWER			
10	47126000	Slide Knob, TIMER, DOLBY NR	<black mo<="" td=""><td>del></td><td></td></black>	del>	
11	46408600	Slide SW., TIMER	1	47128000	Lid Ass'y A
13	07106701	20kΩ VR, MIC LEVEL	5	47121400	Bonnet
14	46502200	Jack, MIC	. 6	47128100	Lid Ass'y B
15	46096600	Jack, PHONES	12	07680600	Knob, MIC VR
16	46503700	Slide SW., DOLBY NR	19	47128700	Front Panel Ass'y
17	47113900	Knob, EJECT	19-1	47129000	Cassette Well Ass'y
18	47122800	Spring, eject knob	19-2	47113400	Push Knob, TAPE
10	17 122000	op. mg, sycot mics	19-3	47122700	Spring, TAPE Knob, DISK Knob, P
<silver mo<="" td=""><td>del></td><td></td><td></td><td></td><td>Knob, SET Knob, a knob, b knob, ab</td></silver>	del>				Knob, SET Knob, a knob, b knob, ab
1	47127800	Lid Ass'y A			knob, SERIES Knob, DUBBING Knob
5	47121300	Bonnet	19-4	47113200	Push Knob, DISK
6	47127900	Lid Ass'y B	19-5	47113000	Control Panel
12	47127100	Knob, MIC VR	19-6	47113500	Push Knob P
19	47128600	Front Panel Ass'y	19-7	47113300	Push Knob, SET
19-1	47129000	Cassette Well Ass'y	19-8	47112100	Push Knob, a
19-2	47113400	Push Knob, TAPE	19-9	47112200	Push Knob, b
19-3	47122700	Spring, TAPE Knob, DISK Knob, P	19-10	47112300	Push Knob, ab
	17.122.00	Knob, SET Knob, a knob, b knob, ab	19-11	47112400	Push Knob, SERIES
		knob, SERIES Knob, DUBBING Knob	19-12	47112500	Push Knob, DUBBING
19-4	47113200	Push Knob, DISK	19-13	47126500	Push Knob, REC MUTE
19-5	47113000	Control Panel	19-14	47126300	Push Knob, REW
19-6	47113500	Push Knob, P	19-15	47126600	Push Knob, PLAY
19-7	47113300	Push Knob, SET	19-16	47126200	Push Knob, FF
19-8	47112100	Push Knob, a	19-17	47126400	Push Knob, TAPE LEAD IN
19-9	47112200	Push Knob, b	19-18	47126700	Push Knob, REC
19-10	47112300	Push Knob, ab	19-19	47126900	Push Knob, STOP
19-11	47112400	Push Knob, SERIES	19-20	47126800	Push Knob, PAUSE
19-12	47112500	Push Knob, DUBBING	19-21	47086900	Spring, mechanism control knob
19-13	47107500	Push Knob, REC MUTE	19-22	47122900	Spring, cassette well
19-14	47107300	Push Knob, REW			

4-2. Top View



1	Pa	rts	List	<top< th=""><th>View:</th></top<>	View:

Stock No.	Description
46363800	4P INPUT/OUTPUT Terminal Board
46411800	Jack, COMPU EDIT
38004700	Power Supply Cord
07917700	AC Cord Cover
15010501	Power Transformer
	46363800 46411800 38004700 07917700

Parts No.	Stock No.	Description
6	47128200	Side Panel (R) <si iver="" model=""></si>
	47128300	Side Panel (R) <black model=""></black>
7	47113100	Joint Shaft, power sw.
8	46370300	Eject Dumper Ass'y
9	47128400	Side Panel (L) <si iver="" model=""></si>
	47128500	Side Panel (L) <black model=""></black>

5. MAIN PARTS REPLACEMENT

(See Exploded View on page 12 & Top View on page 9)

A. Front panel Ass'y

- 1) Remove Lid Ass'y-a, Lid Ass'y-b and bonnet.
- 2) Detach two damper shafts from right side pins of cassette well.
- 3) Loosen six screws to remove front panel Ass'y.

B. a-Mechanism Ass'y

- 1) Remove front panel ass'y and bottom plate.
- 2) Remove a-mechanism panel and take out counter belt around take-
- 3) Pull out (A) connectors (four parts) and remove the harness. (See Top View on page 9.)
- 4) Loosen four screws fixing a-mechanism ass'y.
- 5) Pull out eject knob of a-mechanism.
- 6) Remove the left side panel.
- 7) Pull out a-mechanism Ass'y to the rear panel side.

C. b-Mechanism Ass'y

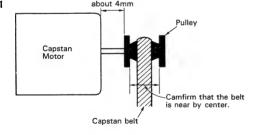
- 1) Remove front panel ass'y, b-mechanism panel and bottom plate.
- 2) Take out counter belt around take-up reel.
- 3) Pull out (B) connectors (four parts) and remove the harness. (See Top View on page 9.)
- 4) Pull out © connectors (five parts).
- 5) Loosen two screws fixing reinforcement plate.
- 6) Pull out power knob.
- 7) Loosen one screw fixing F-3935 circuit board.
- 8) Loosen four screws fixing b-mechanism.
- 9) Remove left and right side panel.
- 10) Remove b-mechanism ass'y.

D. Capstan motor 33 (See Exploded View on page 12)

- 1)Perform "step C. Mechanism ass'y" first.
- 2)Take off motor lead wires at motor terminal by soldering iron.
- 3)Loosen out three screws (14) fixing capstan motor mounting plate.
- 4)Loosen out three screws (37) fixing motor.
- 5)Pull out the pulley 34) from capstan motor shaft.

Note: To attach motor pulley, insert the pulley to capstan motor until the gap (between capstan motor and pulley) will be about 4 mm, while the set is moving, confirm that capstan belt is near by center of the pulley.

Fig. 5-1



E. Capstan belt 32

- 1)Remove mechanism chassis.
- 2)Loosen out three screws (14) fixing capstan motor mounting plate.

F. Reel motor ass'y 45

- 1)Perform "E. Capstan belt" first.
- 2)Take off cord band at reel motor cords.
- 3)Take out washer (18) and pull out take-up and supply reel table ass'y.
- Note: Pay attention to loose spring plate (15) and washer (16).
- 4)Remove three screws 14 fixing reel motor mounting plate.
- 5)Remove two screws (13) fixing reel motor ass'y.

G. Mechanism driving motor 20

- 1)Remove mechanism chassis.
- 2)Remove one screw (7) fixing cam gear shaft after removig steel ball fixing plate.
- 3)Remove two screws (14) fixing mechanism moving motor mounting plate.
- 4)Loosen two screws 14 fixing capstan motor mounting plate.
- 5)Remove two screws (1) fixing the motor ass'y (20) after taking cam gear (23) out of its shaft.

Note: While sliding head base and break lever to upward, insert the cam gear into it's shaft.

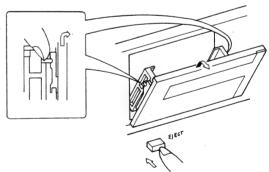
H. Idler 45-2 (Fig. 6-1)

- 1)Remove the cassette lid.
- 2)Remove the mechanism cover assembly.
- 3)Remove the washer (45-1) retaining the idler.
- 4)Take out the idler (45-2).

I. Lid Ass'y

1)Press the EJECT switch to open the cassette holder, push the parts locked at the left and right in the figure while pulling it upward, and remove the cover.

Fig. 5-2



2)Re-attach the cover to the cassette holder by following the procedure for its removal in reverse.



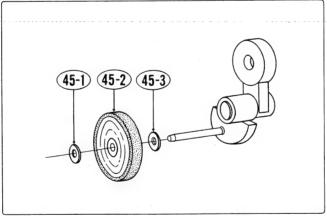
6. EXPLODED VIEW & PARTS LIST

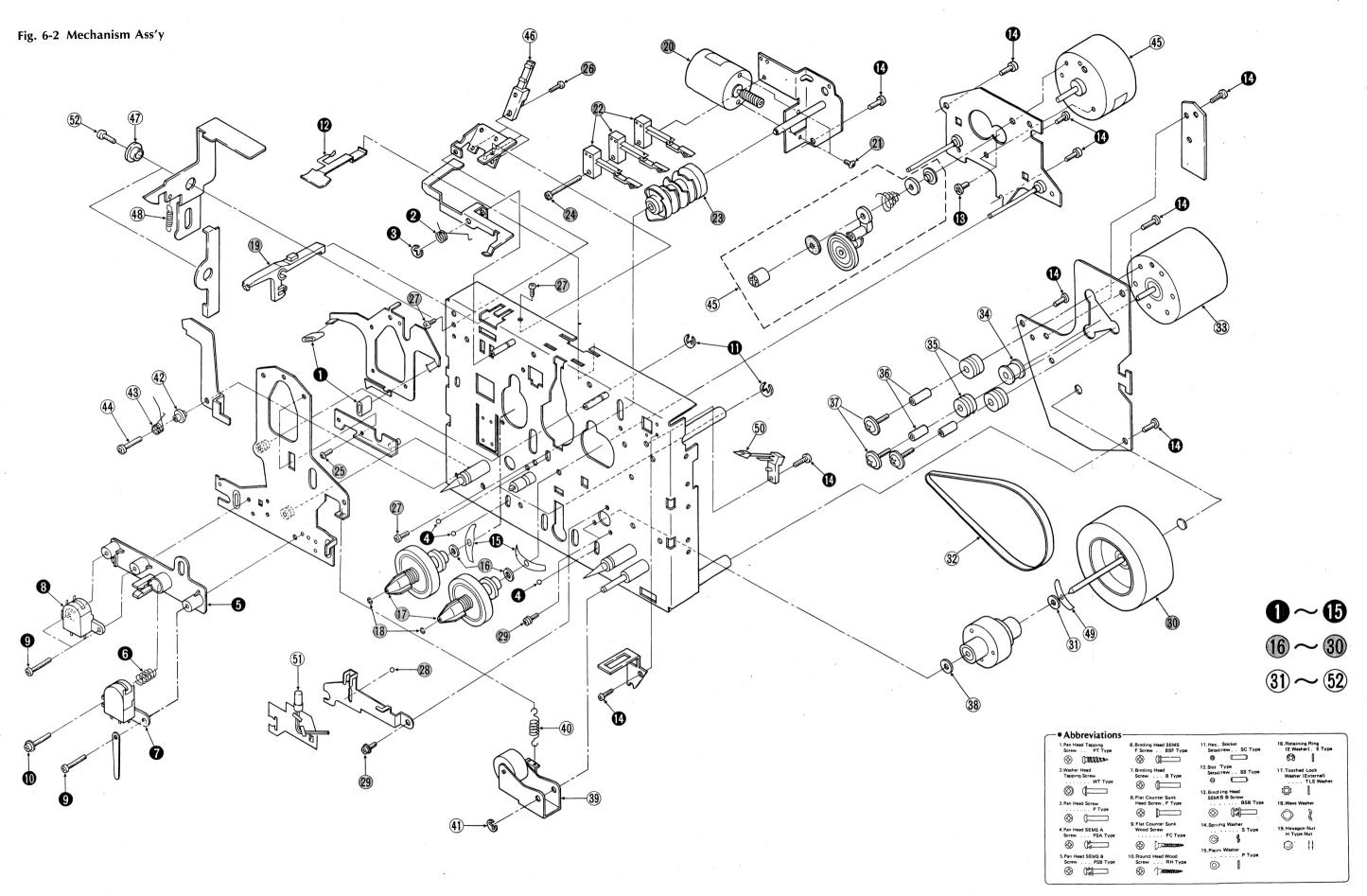
Parts List < Mechanism Ass'y>

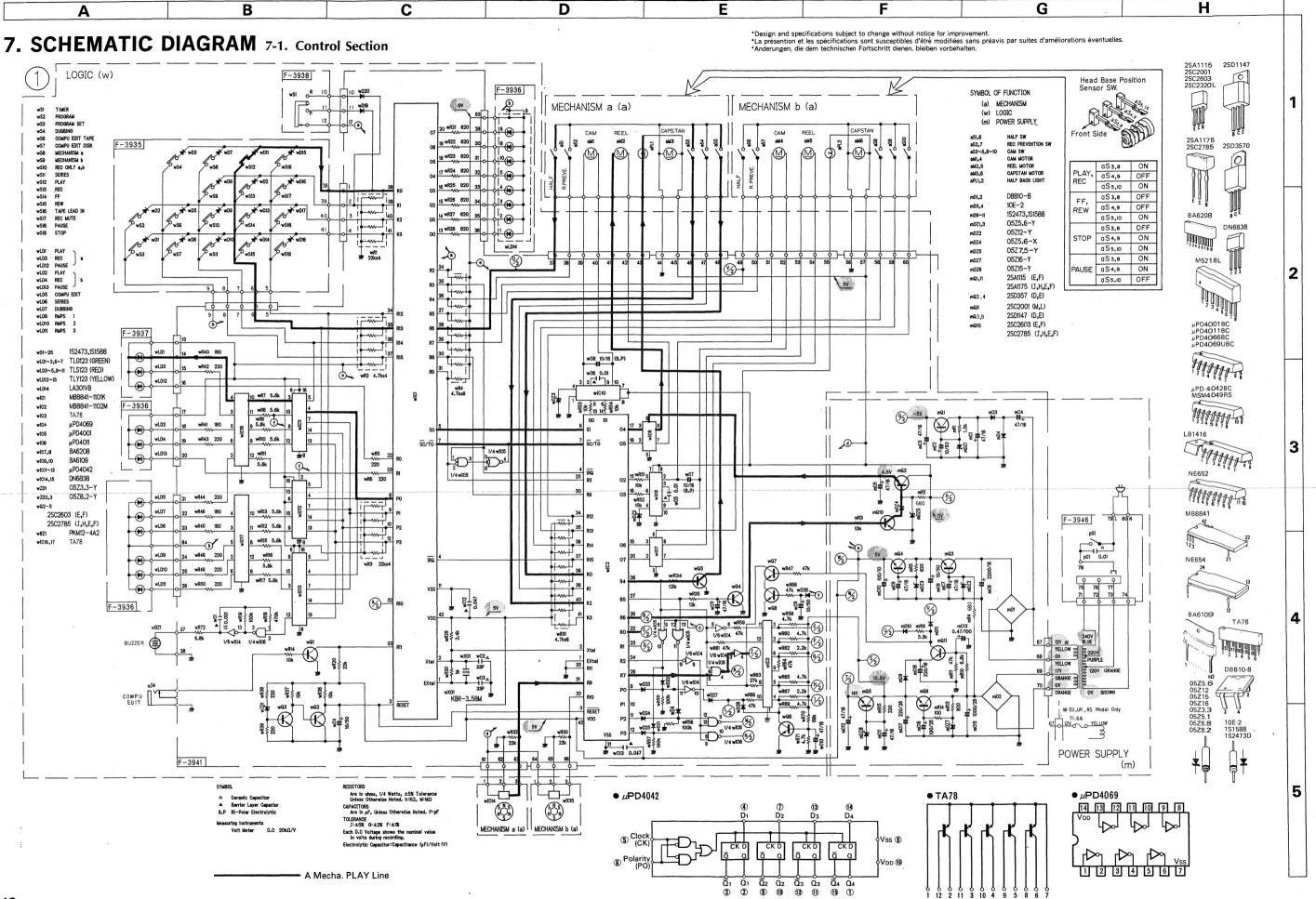
Parts No.	Stock No.	Description		
1	07734000	Brake Shoe		
2	47156000	Spring, sensor lever		
3	08322600	E-type washer, $d = 2.5$		
4	65400300	Steel Ball, $d = 2\phi$		
5	07735400	Head Pedestal		
6	07734400	Spring, Rec & PB Head		
7	47155700	Rec & PB Head		
8	07997400	Earth Head		
9	07736700	Screw, M2 x 13		
10	07736500	Screw, M2 x 14		
11	00489200	E-type Washer, $d = 3$		
12	47156100	Cassette Hold Spring		
13	07736400	Screw, M2.6 x 3		
14	46396800	Screw, M2.5 x 5		
15	47040600	Spring, back tension		
16	51821600	Washer, $d = 3.1$		
17	07733100	Reel Hub Ass'y		
18	07732600	Washer, $d = 1.8$		
19	09446800	Rec Sensor Lever		
20	47155800	Mechanism Moving Motor		
21	07736300	Screw, M2 x 3		
22	47040800	Leaf SW.		
23	47040900	Cam Gear		
24	47041000	Screw, M2.5 x 20		
25	47041100	Screw, M2.5 x 3.5		
26	00436500	Screw, M2 x 4		
27	08321500	Screw, M2 x 4		
28	09462700	Steel Ball, d = 3		

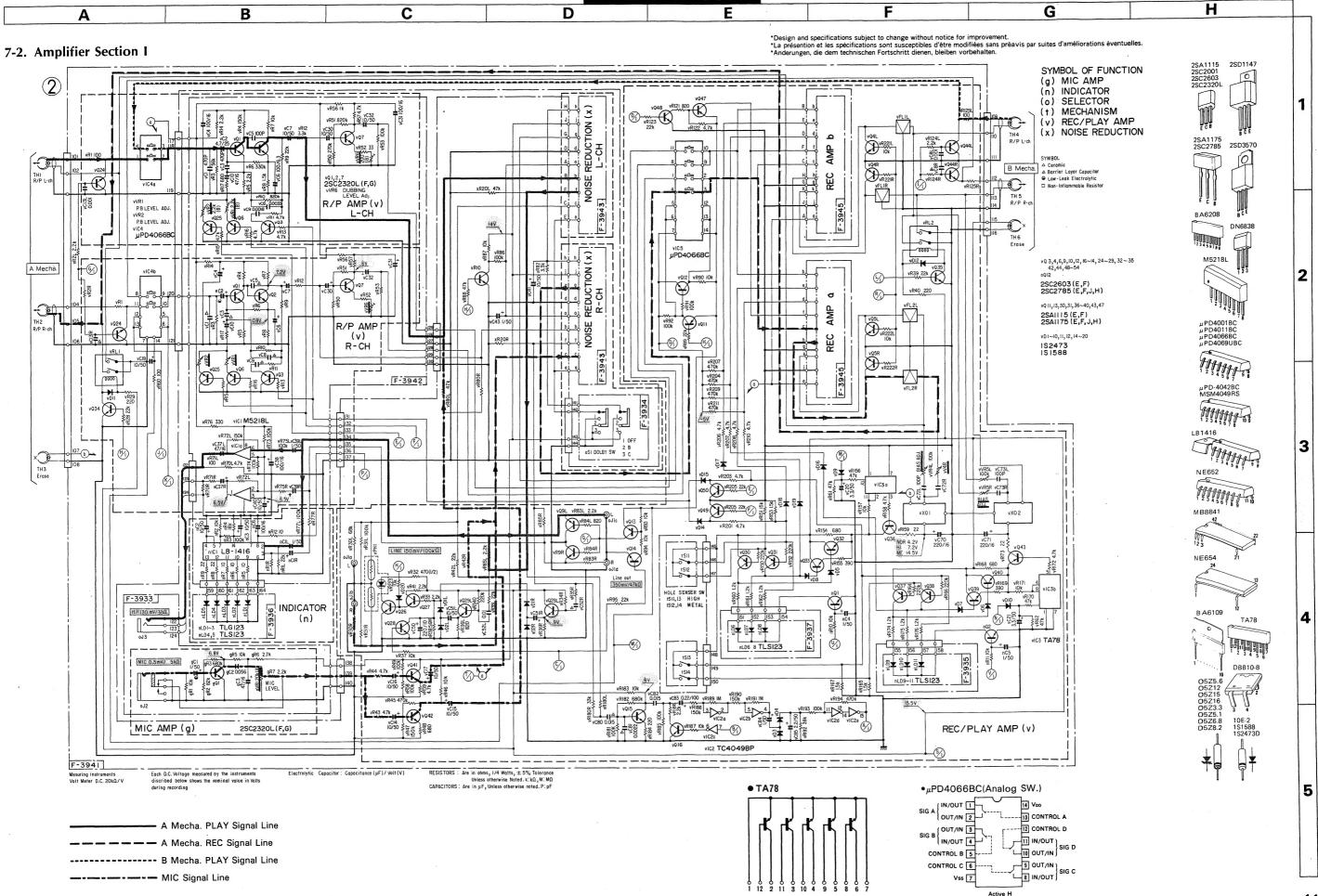
Parts No. Stock No.		Description	
29	08321400	Screw, M2.6 × 6	
30	47041300	Flywheel	
31	47156400	Washer, $d = 3$	
32	47041400	Capstan Bele	
33	47155900	Capstan Motor	
34	47041600	Motor Pulley	
35	07734100	Cushion	
36	47041700	Spacer	
37	00421400	Screw, capstan motor	
38	47041900	Washer	
39	09462900	Pinch Roller Ass'y	
40	47042000	Spring, pinch roller	
41	00489000	E-type washer, $d = 2$	
42	09463100	Collar, rock plate	
43	09463200	Spring, rock plate	
44	09463300	Screw, M2.5 x 10	
45	09465100	Reel Motor Ass'y	
45-1	07879300	Stopper Washer	
45-2	07879200	Idler	
45-3	07879400	Poly-trust washer, $d = 2$	
46	09463400	Leaf SW., rec sensor, tape selector	
47	47156500	Collar, eject arm	
48	47156300	Spring, eject arm	
49	47156200	Spring, capstan	
50	09462400	Leaf SW., Half	
51	47201600	Lamp 12V 40mA	
52	47022500	Screw, M2.5 × 6	

Fig. 6-1 Play Idler Ass'y









SYMBOL OF FUNCTION
(p) FIXED PARTS
(v) REC/PLAY AMP (x) NOISE REDUCTION

RESISTORS

Are in ohms, 1/4 Waits: ± 5% Tolerance
Unless otherwise Noted. K: KΩ, M: MΩ
CAPACITORS

Are in pF, Unless otherwise noted. P:pF
Electrolytic CAPACITOR
Capacitonce (μF)/Volt (V)

Measuring instruments volt Meter D.C. 20kQ/V

F-3946

2SD1147

2SD3570

DN6838

2

3

4

5

2SC2001 2SC2603 2SC2320L

2SA1175 2SC2785

BA6208

M5218I

μPD-4042BC MSM4049RS

LB1416

MB8841

NE654

BA6109

05Z5.6 05Z12 05Z15 05Z16 05Z3.3 05Z5.1 05Z6.8 05Z8.2

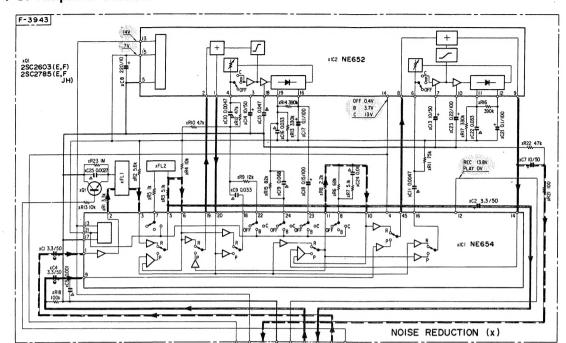
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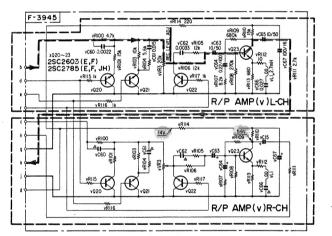
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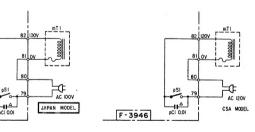
51416 FHHHH

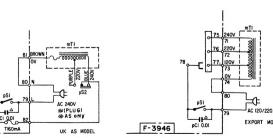
A D

7-3. Amplifier Section II





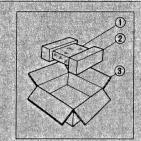




PLAY Signal Line REC Signal Line

8. PACKING LIST

Parts No. Stock No. Description 91167620 Vinyl Cover 47127600 Styrofoam Packing 47127200 Carton Case (Silver) 47127400 Carton Case (Black)



9. ACCESSORY LIST

	Stock No.	Description
14	38103300	Pin Plug Cord
	46267300	Mini Plug Cord
	94300500	Head Cleaner
	46423200	Operating Instruction
		COLOR STATE OF THE



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SANSUI ELECTRONICS (U.K.) LTD.: SANSUI ELECTRONICS G.M.B.H.:

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333 West Alondra Blvd, Gardena, California 90247 U.S.A.
3036 Koapaka 5t. Honolulu, Hawaii 96819 U.S.A.
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